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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/665,899	09/20/2000	Masayoshi Iwase	10517/74	6300

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EXAMINER

MERCADO, JULIAN A

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 04/08/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/665,899

Applicant(s)

IWASE ET AL.

Examiner

Julian A. Mercado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10-12,14-16,18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,3-5,7,8,10-12,14-16,18,20,22,24 and 26 is/are rejected.
- 7) ☐ Claim(s) 21, 23, 25, 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Remarks

This Office Action is responsive to Applicant's amendment filed January 21, 2003.

The rejection of claims 3, 7, 10, 14 and 18 under 35 U.S.C. 112, first paragraph has been withdrawn.

The rejection of claims 22, 23, 26 and 27 under 35 U.S.C. 112, second paragraph has been withdrawn.

Claims 1, 3-5, 7, 8, 10-12, 14-16, 18 and 20-27 are currently pending.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 4-5, 8, 11, 12, 15, 16, 20, 22, 24 and 26 are rejected under 35 U.S.C. 102(e) as anticipated by Kurita et al. (U.S. Pat. 5,998,055)

The rejection is maintained for the reasons of record and for the additional reasons to follow in response to applicant's salient arguments. The basis for rejection will not be reiterated, as the reasoning behind the examiner's ground of rejection is believed to have been sufficiently discussed in detail in prior Office Actions.

Response to Arguments

Applicant's arguments have been fully considered, however they are not persuasive.

The examiner duly notes applicant's amendment to independent claims 1, 20 and 24, now incorporating the limitation which further defines that each of the plurality of regions "extends substantially across a width of the separator". As a matter of clarification, the examiner notes that as the instant separator 300A appears to be a square or equilateral shape, the width of such a separator can be taken in either the longitudinal or latitudinal direction with respect to the plane of the paper of Figure 6. However, as the scope of the present limitation states that the plurality of regions extends *substantially* across a width of the separator, it appears to the examiner that applicant is claiming the width of the separator in the left-to-right direction, as the plurality of regions if measured in the top-to-bottom direction cannot extend substantially across the separator's width at least not without crossing over rib pieces 355, 356. With this scope of interpretation in mind, the examiner maintains that Kurita shows the plurality of regions extending substantially, or more so *entirely*, across the width of the separator in the left-to-right direction, see Figure 1. Applicant on page 4 of the present response appears to take the position that the projections in Kurita are localized at the sides of the separator. However, in reply the examiner maintains that the present scope of the claims, even as amended, do not preclude the projections [b] in Kurita as being part of the plurality of projections also including projections [a], both types of projections as a unit spanning the width of the separator in the left-to-right direction. Notwithstanding, even if the claims were limited to somehow exclude the projections [b] in Kurita as being readable on the instant projections, the projections [a] would be maintained to extend substantially across the width of the separator in the left-to-right direction, albeit with the projections [b] intervening between the projections [a] at the terminal ends of the region. In

amend to
a line or two

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being at the terminal ends of the region as claimed, the projections [a] extend across a width of the separator from the separator's leftmost end to its rightmost end.

The examiner further notes applicant's amendment further defining that the gas flows "into a first of the plurality of regions in a direction parallel to a longitudinal axis of the first region". By longitudinal, it appears to that examiner that "longitudinal" is in relation to each region (and not the separator body as a whole) in the left-to-right direction and for each of the plurality of regions. Kurita is maintained to teach the gas flow in a longitudinal direction insofar as the gas is perceived to "immediately turn" into the longitudinal direction as it exits inlet [12] and into the first of the plurality of regions [16A]. As noted in a prior Office Action, the scope of the present claims, even as amended, do not recite the extent to which the gas flow between the inlet and the passage is parallel to the longitudinal axis of the passage. It appears to the examiner that in view of the amended limitations taken as a whole, applicant is attempting to differentiate the claimed invention from that shown by Kurita in attempting to recite *the gas flow into the first plurality of regions to extend substantially across a width of the separator.*

[emphasis added] As a suggestion, this feature could be incorporated into the instant invention by positively reciting the gas supply inlet 305 to be positioned in or along the longitudinal direction of the first region the gas flow so as to allow the gas to flow (upon immediately exiting the gas supply inlet) into a first of the plurality of regions in a direction parallel to the longitudinal axis of the first region. See Figure 6 showing the gas supply inlet 305 of the application in comparison to Kurita's gas supply inlet [12].

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 7, 10, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita as applied to claims 1, 4-5, 8, 11, 12, 15, 16, 20, 22, 24 and 26 above, in view of Tajima et al. (U.S. Pat. 5,541,015)

The teachings of Kurita are discussed above.

Kurita does not explicitly teach a cooling plate located adjacent to a top of the separator having a plurality of projections for passage of coolant. However, Tajima teaches a cooling plate [2] having passages for coolant such as cooling air. (cover figure or Figure 4, col. 4 line 55 et seq., col. 6 line 14-52) Thus, at the time the invention was made, the skilled artisan would find obvious to modify Kurita's invention by employing a cooling plate. The motivation for such a modification would be to reduce temperature variances and maintain an even fuel cell operating temperature.

Allowable Subject Matter

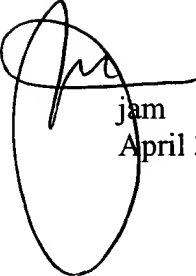
As set forth in the prior Office Action, claims 21, 23, 25 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian A. Mercado whose telephone number is (703) 305-0511. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (703) 308-2383. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



jam
April 3, 2003



Patrick Ryan
Supervisory Patent Examiner
Technology Center 1700